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ABSTRACT

A review of recent research in child language development examines how this research can be used to inform policy that will enhance the capabilities of English-speaking and non-English-speaking children to develop strong language skills and promote the success of at-risk children. Focus is on the research most applicable to policy planning. First, a brief overview of American policy on language in education and the issues and attitudes clouding discussion of English-only and bilingual approaches is provided. Two longer sections make up the body of the discussion. One section addresses knowledge of the child's first-language development, and the other section looks at knowledge of child language development in bilingual settings. Educational implications of each are offered. A concluding section identifies other educational policy issues that are profoundly influenced by policy on language. A 38-item selected bibliography is included. (MSE)

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THE Northwest Regional Educational Laboratory

PROGRAM REPORT

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LANGUAGE DEVELOPMENT:

A Base for Educational Policy Planning

A Policy Issues Paper

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July 1990

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PREFACE

Throughout American history, issues relating to language in schooling have faced educational planners and policy makers, but perhaps never more so than now. Language skills, both oral and written, are decried as declining in quality, at a time when communicational ability is viewed as more crucial to workplace success. With projections of a labor force increasingly composed of non-native English speakers, the effectiveness of instruction for both bilingual children and children from English-speaking homes has come under scrutiny. Further, many new policy initiatives in education, for example, restructuring and early education, as well as key areas of school improvement, directly affect how language skills are taught.

Recent research in the field of child language development indicates that the strong, native first- and second-language learning capacity in children can be amplified and channeled by appropriate instruction. This paper is intended to suggest how this research can be used to inform policy that will enhance the capacities of English- and non-English-speaking children to develop strong language skills and help assure that at-risk children can succeed in school. The paper is not intended to be a comprehensive review of the literature in this vast arena, but rather a synthesis of the research most applicable to policy planning. Where scholarly opinion has not converged, this is noted, as are areas in which findings are derived from just a few studies.

The paper first offers a brief overview of American policy on language in education and the issues and attitudes that have tended to cloud discussion of the merits of English-only and bilingual approaches. Two lengthier sections make up the body of the discussion: our knowledge of child first language development and our knowledge of child language development in bilingual settings. Educational implications of each are offered. The paper concludes with identification of other educational policy issues that are profoundly influenced by policy on language. Bibliographic notes on the key sources used in developing the paper are attached. A full bibliography of works consulted is available from the authors.

This work has benefited from discussions between and among: William Demmert and Edna MacLean of the Alaska Department of Education and Alfredo Aragon, Carlos Cardona-Morales, Winona Chang, Rex Hagans, Ethel Simon-McWilliams, Stephen Reder, and Karen Reed Wikelund of the Northwest Regional Educational Laboratory. Additional resources were suggested by C. Richard Tucker of the Center for Applied Linguistics.

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A. BACKGROUND AND CURRENT POLICY CONTEXT

The role of language in American education. There is strong historical precedent for an educational policy focus on language development. Language issues have always played a central role in discussions regarding American education.

Indeed, well into the twentieth century, our lower-level schools were known as "grammar schools," where the rudiments of English reading, writing, pronunciation, syntax, spelling and "usage" were instilled in young people, to the best of their teachers' ability. However, if Mark Twain and other popular historians of the American experience are to be believed, this simplistic approach often conflicted with the day-to-day reality of many pupils and was frequently met with unrelenting resistance from those who were to be so edified. Other subjects, excepting perhaps basic arithmetic, were of secondary importance for the mass of public education pupils.

If students went on to secondary education, there, too, they encountered a heavily language-oriented curriculum. In addition to immersion in the English-language literary canon, public high school aspirants faced conquering Latin and French, if not Greek and German. The "classical" education that was the hallmark of the wealthy classes and their imitators was essentially a schooling in linguistics.

Strong historical precedent exists for an educational policy focus on language development. Language instruction has traditionally been regarded as the essential key to "melting" the diverse ethnic "pot" of indigenous and immigrant peoples into American polity. However, Americans have tended to confuse the importance of learning and growth of language development with the importance of a single language--English--for the day-to-day functioning of government and commerce.

Non-English-speaking youngsters and communities have suffered the effects of this confusion, being left with the need to develop fluency in speaking, reading, and writing English, while saddled with mandates as to how to achieve this goal. Seldom have these mandates been informed by solid knowledge of the nature of language development or sound pedagogical practice. In many times and places, they have extended to seeking complete eradication of the child's first language. The early history of schooling in Alaska is a chilling example.

Bilingual education has become politicized. While bilingual and other-than-English language schools have persisted throughout American history, the first half of the twentieth century witnessed their most severe decline. This set the stage for the current intense debate about the role and practice of teaching English and other languages. In the past two decades, national debate about the role of other languages in American education has been fueled to near-frenzy by such factors as:

- Renewed immigration and proportionally high birthrate among non-English-speaking groups, making the quality of education for these children a key to individual and national well-being.
- The civil rights movement and the rise of ethnic consciousness, with the attendant demands on the part of ethnic minorities--Black, Hispanic, Native American, and white ethnics--to retain and reclaim their cultural heritage and increase self-determination, including education.
- Reactions, similar to those in other periods of immigration and ethnic revival, which demand conformity, above all, conformity to English. (This time the English-only movement and the cultural literacy movement.)
- The decline in foreign language teaching and learning during a period of an increasingly global economy, and a perceived connection between foreign language capacity and a decreasing American ability to compete internationally.

In the 1970s, federal support was secured for programs using the child's home language as the language of at least the primary grades. Early teaching of all subjects in these programs offered English as a subject, i.e., as a foreign language, and other lessons might include reinforcement in English to supplement home-language-based instruction. Many programs also first taught literacy in the home language. They might continue bilingual maintenance throughout the school years, or a transition to English might take place gradually. During the 1980s, much attention was devoted to appropriate methods of educating the non-English-speaking child. Many bilingual and ESL programs continue today. Before the long-term results of various bilingual approaches could be assessed, federal policy shifted toward emphasizing English, if not as the only language of instruction, then minimally as a co-taught language in the earliest grades. Literacy was to be achieved first in English, not the home language.

In an atmosphere dominated politically by the question of the primacy of English, the larger educational issue, i.e., the importance of language itself in the intellectual, social, and emotional development of children, has, until recently, been obscured. Further, there has been insignificant attention paid to the active role of the child as a natural, potentially multilingual, language learner.

Such a cursory overview does not do justice to the complex issues which surround and underlie the debate over choice of language in instruction. But it is important to place the current, re-awakened interest in the more comprehensive question of the general place of language development in schooling in this context. Policy and practice of bilingual and bidialectal (children who speak a form of English other than standard English) education have held center stage for a number of years. Now this question is increasingly discussed by educators as one form of language development.

Research in child language development has gone forward. The language-acquisition capacities of young and school-aged children have become better understood. Now the fundamental question of linguistic development generally is regaining needed attention among educators, if not yet among political spokespersons.

B. LANGUAGE DEVELOPMENT IN CHILDREN

Language development is an apparently spontaneous process in all normal children. The environment in which a child finds him/herself determines what language or languages each child will acquire. Several key issues seem to be apparent in information about first language development:

- The cognitive and linguistic processes that underlie language development impact how a child can be expected to function in the early years of schooling.
- The ways in which family and community uses of language affect language development and provide more or less exposure to particular styles of interaction and situational applications of language, such as uses required in the school classroom.
- Educational practices that are based upon the child's level of linguistic development can promote further development in language skill and use.

1. Cognitive and Linguistic Processes

Several key aspects of the cognitive/linguistic development of children are addressed in this section, especially the educationally relevant aspects of: language acquisition as a universal process; language development as a process continuing into youth and adulthood; the inextricable relationship between language and cognitive development; and the ways in which the structure of the particular language the child is learning may emphasize certain features leading to their early acquisition.

A toddler's coming to speech is an astounding and exciting process to witness, as breathless parents readily recount. Yet, while language acquisition is most associated with ages two to three, the process begins well

before the first words and continues long after the rudiments of interaction have been achieved. This latter--the extended language development process that continues through age eight, or in some views, through age 12 or even longer--is of critical importance to the structuring of content and delivery of schooling.

Acquisition is a universal process. Children acquire language in response to their environment, naturally assimilating and recreating the language of their care givers and, later, peers and others with whom they interact. However, the sequence of language-acquisition events is universally parallel. All normal children seem to acquire the elements of their native language in a stable order, at equivalent ages, and using analogous learning processes.

Major findings in language acquisition research include the following:

- Language acquisition is evident long before speech. Through babbling, an infant is able to produce all of the vowel sounds and most of the consonant sounds of any language in the world. Yet, by six months, infants have begun to associate sounds and meaning and to focus on those sounds which are associated with meanings in their care givers' language(s). Other sounds are eliminated.

- At 18 to 24 months, children begin to exhibit several of their key language skills, including naming, negation, action and object, location, possession and attribute, and learn many new words usually through sensory activities. Sequences emerge.

- At two to three years, a child has an active vocabulary of 1,000 words and receptive competence of more. Ideas as well as objects can be expressed.

- A three- to four-year-old learning English has mastered the language's specific grammatical forms, including pronouns, adjectives, adverbs, and plurals and has a 1,500 word vocabulary. Generally, grammatical structures are in place, although forms may be over-regularized.

- Five-year-olds have a 3,000 word active vocabulary and use words for behaviors, exploring the relation of speaking and acting. They have competence of the full range of their language's forms and their grammar is by and large an accurate mirror of its adult models.

- Beginning schoolchildren are nearly, but not fully, equivalent to adult communicators. Six- to eight-year-olds are competent speakers; however, some sounds may not yet be fully accurate in articulation, and context-imbedded language may still be difficult for them to understand. Throughout the earlier years of schooling and into the middle years, children continue to expand their capabilities for inferring context and discerning affective meanings in discourse. Young people's interest in playing with words, telling jokes, rapping, etc., exemplifies this continuing emergent facility with language. Interpretation and stylistic variation remain as skills to be learned during school years.

- New vocabulary and socially-appropriate uses of language continue to be acquired throughout teenage and adult life. Introduction to new social situations and to new groups of people may require the continued learning of new styles of speaking at any age. Differing forms of humor are a good example.

This general language sequence of events is followed regardless of the particular language to which children are exposed. The language may have a complex or simple sound system, ranging from eight to over 30 meaningful sounds. It may be mono- or multi-syllables. It may exhibit many case endings or none at all. It may have a complex counting system with many sets of numbers, semantically defined, and single/dual/triple/multiple distinctions, or a relatively simple number and plurality system, as does English. The structure of the acquired language will stress some linguistic features, and its young speakers will have strong understanding of these frequent patterns. Other structures will be optional or seldom, and less obvious to new users. But the general significance and timing of oral language acquisition is parallel world-round.

Acquisition follows cognitive development and is stimulated by interaction. The development of a child's language corresponds with the general maturation process. As children gradually mature through the expansion and exercise of cognitive capacities, so does their ability develop to master more complex grammatical patterns in the first language and to participate eventually in the variety of language use situations that are encountered in the broader world they come to inhabit. As Piaget argues, a child needs additional time more than additional stimuli, in order to progress through the natural stages of language development.

Current linguistic theory holds that children acquire linguistic structures and sociolinguistic rules for their usage in a sequenced order via a natural process. The process is not one of conscious learning, but rather is a product of engaging in meaningful interaction. And, in order to fully comprehend and retain the language input they are receiving, children must be encouraged to produce meaningful output, as well as hear it, i.e., to deliver a message that is conveyed as precisely, coherently, and appropriately as possible in the communicative context. Exposure to a variety of contexts enables children not only to experiment with grammatical structures and vocabulary, but to practice appropriate uses of the language.

Studies of care giver-child communication indicate that, rather than "teaching" children language by regular correction, or even consciously modeling language structures for children to follow, care givers primarily interact with young language learners on the basis of meaning. They respond appropriately to the apparent meaning content of children's early attempts to communicate; they supply missing meaning where needed; and they demonstrate by their responsive actions that successful language use is a means to get needs and wants met. On the part of the child, what is unfamiliar can be inferred from contextual and gestural information and general knowledge cues embedded in the message. The primary focus, then, is on comprehending the message and not on the linguistic form of the input. If the input is interesting and relevant to the learner, meaningful interaction will be sustained and comprehension will be facilitated.

Thus, the fundamental purposes and processes of language are demonstrated, without overt instruction, by engaging the child in interaction. This process is described by some as the "negotiation" of meaning. Effective interaction combines both meaningful input and output to promote the learner's comprehension of what the other is intending to mean, what the situation means, and, therefore, what the language means and how it works.

Yet, at the age of beginning school, children are not yet cognitively mature enough to handle decontextualized meaning, as their language usage shows. During the elementary years, children's continuing cognitive development enables them to handle increasingly decontextualized language, language described as requiring "cognitive/academic language proficiency." And children are still in the process of becoming capable of addressing tasks that require a high level of cognitive capability, beyond the communicative competence which is itself required to understand what task is being presented.

Major findings on the natural language learning process include the following:

- The development of a child's language corresponds with the general maturation process.
- A child needs additional time more than additional stimuli in order to progress through the natural stages of language development.
- The primary focus of care giver-child communication is on comprehending the message and not on the linguistic form of the input. If the input is interesting and relevant to the learner, meaningful interaction will be sustained and comprehension will be facilitated.
- The fundamental purposes and processes of language are demonstrated, without overt instruction, by engaging the child in interaction. This process is described by some as "negotiation of meaning."

- The language acquisition process is not one of conscious learning, but rather a product of engaging in meaningful interaction.

- In order to fully comprehend and retain language, children must be encouraged to produce meaningful utterances of their own devising, not just listen to others.

- Exposure to a variety of contents enables a child not only to experiment with grammatical structures and vocabulary, but to practice appropriate uses of the language.

- During the elementary years, children's continuing cognitive development enables them to handle increasingly decontextualized language.

Literacy acquisition is also a developmental process, but may not be stimulated. While oral language skills are basically acquired by age six, literacy-related language skills continue to expand with the child's level of cognitive development throughout the school years. Beyond the chronologically later emergence of the requisite cognitive skills, there is a fundamental distinction between language acquisition and literacy acquisition: the former is a natural, universal, and largely unconscious acquisition process; the latter is a more culturally-delimited process, which is normally acquired only with substantial explicit training.

However, in a society in which literacy plays a salient role, children begin to acquire awareness of literacy and its uses very early in life, long before schooling. From their adult models, they learn the functions of literacy, e.g., information gathering, entertainment, and communicating with persons not present. At one year of age, a child from a literacy-salient environment is trying out writing, in scribbles that already are distinctively related to their care givers' writing system. In the first several years of life, children expand their understanding of the roles of literacy and continue to explore reading- and writing-like activities on their own.

These associations that preschool children have with literacy are largely directly functional, i.e., using reading and writing to accomplish some clear task or goal. They do not yet possess the ability to comprehend fully the abstract system of sound-symbol association in written forms nor to learn from writing or reading without oral reinforcement. Acquiring the ability to use decontextualized language is a key task of the early years in schooling. The failure to make this transference to learning through literacy alone, that is, through decontextualized language, has been recognized as the critical first point for children's school failure, in or around grade four.

Thus, notably, and importantly for educators, there is a far wider range in young children's knowledge and skills in literacy than in oral language. All school beginners have good knowledge of their language; they may or may not have knowledge of the practice of literacy. For children from homes where literacy is practiced, the value of reading and writing are already apparent and children's interest in literacy is probably high. For children from homes that are characterized largely by oral language use, the value of reading and writing--unlike the value of oral language--remains to be demonstrated. Such children are not too old to exhibit fully equivalent capacity to acquire fluent literacy, but the starting point for schooling must be demonstrating functions for literacy that create desire to learn this skill.

Major findings of the literacy development process include the following:

- Literacy-related language skills continue to expand with the child's level of cognitive development.

- Language acquisition is a natural, largely unconscious process, while literacy acquisition is normally acquired through explicit training, although it begins to develop if children are in literary-oriented environments.

- Children can learn the functions of literacy early from their adult models.

- Acquiring the ability to understand and use decontextualized language is a key task of the early years of school.

- Failure to make the transference to learning literacy alone has been recognized as the critical first point for children's school failure.

- The school's first task is to demonstrate the functions for literacy that create the desire to learn this skill.

2. Family and Community Teaching and Interaction Styles

As the preceding discussion of literacy acquisition makes clear, there are a variety of ways in which families make use of language to create a web of communication that meets their needs. The saliency and applications of literacy is an obvious example. There is a profound contrast in the practice of language uses between a child of academicians, who sees their parents' "work" to be reading and writing and discussing literacy-mediated knowledge, and the child of parents who obtain their knowledge primarily through oral channels and seldom read.

For educators, differences in children's knowledge of literacy practices present an important challenge in early schooling. But children's knowledge of literacy practices are a fairly easily recognized challenge. On the other hand, culturally-based differences among children's understanding of appropriate functions of oral language may be equally profound, but are far less understood and sometimes go unrecognized in the classroom. The following section addresses distinctions among families' norms for communication, particularly distinct expectations for interactions between children and adults and communication structures for training and instruction.

Speech communities vary within a language. That which is conventionally described as language and subject to formal study is only a part of the larger communication structure which is shared by a group of like-speaking people. Within English, and, of course, within other languages, there are many speech communities or groups of people who share a set of norms about how language is to be used, as well as a sound system, a grammar and semantic system. It is the unrecognized differences in interactional structures that often lead to breakdowns in communication between people from different geographic regions, ethnic groups, or even the two sexes. American English speakers, for example, vary greatly in the ways they use their shared tongue. Familiar situations include those of "too much silence," and, alternately, where we were "interrupted" or never got a chance to speak. Pacing of speech and rules for taking the next turn in a conversation are notorious sources of interactional discomfort and ill-feeling. This is true within a single language, as, for example, American humor contrasts fast-paced New York speech with the so-called "drawl" of the Southeast. Likewise, Hispanic Americans from Puerto Rico contrast in style and pace with Mexican-Americans.

Another commonly-cited example of speech community distinctions is the use of eye contact. Among Anglo-Americans, it is polite to watch the face of a superior when he/she is speaking; among African-Americans lowered gaze is used to signal respectful attention. It is critical that educators recognize that interactional patterns derived from a distinct culture may remain as norms for a group's communicative behavior long after their distinct language is lost. For example, urban Indians may be monolingual speakers of English, but their habits and expectations about pacing of speech, conversational turn-taking, and use of gestures and body-language, continue to derive from their native community. They cannot be understood simply as English speakers, rather, they are English-speakers with Indian communication norms.

Issues about speech communication that have planning implications include the following:

- People who share the same language may possess unrecognized differences in interactional structures that result in breakdowns in communication.

- It is critical for educators to realize that certain cultural interaction patterns from a family's language of origin may remain long after the language itself is lost.

- Language is more than a set of rules and structures, it is a system for accomplishing goals, using patterns that are socially constructed.

Structures for interaction vary. Importantly for educators, one of the key areas in which speech communities have highly articulated and individualized norms is in the area of how to use language to interact with and instruct children. Numerous examples of distinct learning styles are recorded in the literature on American speech communities, in English and in other languages. Indian children on the Warm Springs reservation are not subjected to direct instruction by their parents, nor are they asked to practice tasks in public. Rather, children observe adult behaviors and task accomplishments, then practice them privately, surprising their elders by successfully performing the task when they, themselves, are ready. This learning structure which avoids public failure is well-suited to a society in which correcting or contradicting others in conversation is eschewed.

Many high-level communicational competencies vary across speech communities. Public speaking style is a good example. Native Hawaiian children, including those who are monolingual English speakers, tell stories using highly overlapping speech patterns. They work, not as individuals but as groups to construct stories, completing one another's sentences, expanding and amplifying key points. No single person holds the floor, nor is any individual the "teller." Native Americans' public speaking style has been characterized as structured like "spokes in a wheel." Rather than seeking to persuade by a linear sequence of arguments, which narrow the listeners' options, speakers move around the question, looking at it from all points of view, permitting the listeners to weigh each perspective and come to their own conclusions. Persuasive language is perceived as manipulative. Among orally-oriented listeners such as have been described, the framework for interaction relies on shared context between speakers and listeners--expectations of common knowledge, values, and world view. These speakers assume that their listeners are capable of seeing how topics are related and confident of their listeners' ability to draw appropriate conclusions.

Children raised in highly literacy-oriented homes become trained to more explicitly state--and to question--context, as their care givers are drawing on a model that includes not only face-to-face interaction, but written, probably distanced, often impersonal communication with others who may or may not share information, values, and world view. The extent of exposure to literacy and decontextualized uses of language, therefore, may vary widely among children entering school. And, children may differ from one another in the styles and functions of language they have encountered both in speech and in writing.

Research on maternal expectations for children's development is also relevant to educators concerned with language and literacy issues. There is evidence to indicate that children exhibit relatively early or late cognitive and motor development according to their mothers' expectations. The international literature shows that, for example, a group of American mothers had earlier than normal expectations for their children's verbal assertiveness, whereas Japanese mothers expected early development of obedience and emotional control. The children exhibited the anticipated behaviors. Such cultural norms for communicative behavior may be reflected in the level to which these interactional skills are exhibited by children entering the classroom.

Variation in communication structures, even within a single language, has implications for educational policy including:

- One of the key areas in which speech communities have highly articulated and individualized norms is in the area of how to use language to interact with and instruct children.

- Accepted structures for high level communicational competencies such as public speaking vary profoundly across speech communities.

- The extent of exposure to literacy and decontextualized uses of language may vary widely among children entering school.

Thus, descriptions of language development in children, and especially, the interface between the child and the school, must take into account not just the basic aspects of linguistic structure, but the larger context of interactional structure. Language, as it is used by adults, and as it is under development in the school-aged child, is more than a set of rules and structures controlled by an individual. It is a system for accomplishment of a variety of goals, using patterns that are socially constructed. Failure in language development is more likely to lie in the failure to acquire these more complex, socially-dependent skills and behaviors, than in lack of capability to come to speech.

3. Educational Practices that Promote Language Development

While children's basic first-language structure is in place when they begin school, the linguistic system is still undergoing refinement, and children are actively practicing and polishing their speech. Continuing cognitive growth increasingly enables children to acquire the complex, decontextualized uses of language, and it is only in these years that the presence of skills required for acquisition of literacy and, especially, learning through literacy, can be relied upon.

Educational practices that promote language development should build not only on children's knowledge of linguistic structure, but also on their understanding of language usage and roles for individuals in interaction which their family has uniquely modeled. This is true for functions of oral language, and for functions of literacy.

Developmental issues. Language development continues well into the school years. The early years of school need to be rich in language experiences of all kinds. We are able to observe changes in cognitive and linguistic development but there are many relevant aspects that are still unknown. From our observations so far, there are a number of implications for education. These include:

- Curricula for preprimary children should focus on language development, as these children are still actively developing their command of linguistic structures.
- Language learning that takes place before a child goes to school takes place on a nonsequenced, whole-task basis; structured school learning is thus a new form of learning to many children.
- A school environment should be rich in both language the child hears (from people and from books) and in provocations to self-expression and communication.
- Teachers need to be able to listen diagnostically to the children's language and track their progress toward increasingly adequate oral and written forms, giving help as needed without imposing an arbitrary instructional sequence on a learning process not yet fully understood.
- Paradoxically, such diagnostic listening must not interfere with responding at the moment, fully and intently, to the ideas the child is trying to express.
- Solid language skills are the prerequisite for other learning. The early years of schooling should be dedicated to assuring that this base is firmly in place. Approaches such as whole language which offer integrated, rather than segmented, language instruction may be appropriate functionally and developmentally, exploiting the child's natural language-learning capabilities, in combination with targeted skills development activities.
- Curricula for primary children should also be heavily language development-oriented, as these children are at the stage of refining their linguistic structures and developing their repertoire of language usages.

- The cognitive complexity of tasks should be very carefully sequenced, as it is easy to confuse overly-complex language usage with overly-complex tasks. It is often difficult for the teacher and for the children to diagnose why they have failed to succeed in a task.

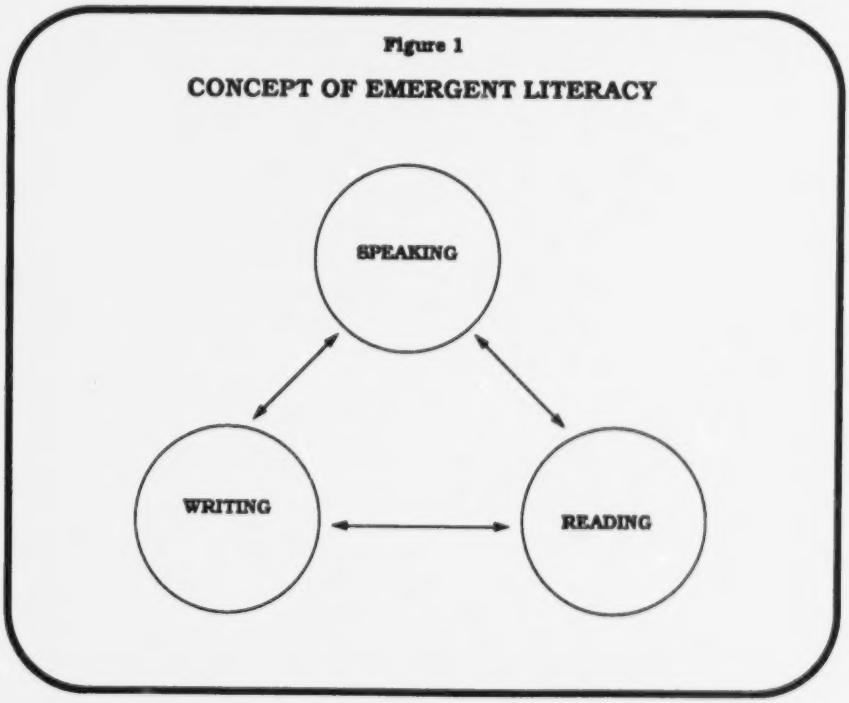
- It is natural to assume that any educational effort is more effective if the objective can be analyzed into component parts and these taught sequentially on some rational basis. But it is by no means certain that this is so for all kinds of objectives. Controversy over the role of sequence compounds selection of part-task versus whole-task instructional procedures.

- The transition to learning from literacy as a primary or sole source of information must be very attentively handled, and not relied upon too early in the child's development, as ability to handle decontextualized language develops fairly late.

Literacy issues. While oral skills are acquired earlier, they are the base for literacy skills development. Speaking, reading, and writing are interrelated as suggested by Figure 1, which shows each as dependent on and influencing the others.

Figure 1

CONCEPT OF EMERGENT LITERACY



While all children normally grow up in environments rich in oral communication, only some children develop in literacy-rich environments. Thus, while all children come to school with clear knowledge of the functions and value of language, many children have had better exposure to active writing and reading. They need to learn not only the forms, but the functions of literacy. Therefore, the distinction between the natural process of language acquisition and the culturally-determined process of literacy acquisition also has implications for education. These include:

- All normal children come to school, whether at three or at six, as active experimenters with oral language. They have significant skill in speaking and listening. They have extensive experience with

the value of participating in oral communication to make their needs known. They are curious to learn more and are practicing their oral skills actively and constantly.

- Literacy-learning, while it can be closely aligned with and extended through the child's natural cognitive maturation process, is not equally stimulated in the environments of all children. Unlike the universal exposure to significant quantities of, and critical functions for, oral language, children's knowledge of literacy, its structure and its functions, can vary from extensive to nearly none.

- Children become engaged in literacy if it is demonstrated to be interesting and/or have utility for them.

- Literacy is no longer viewed only as a cognitive skill to be learned, but as a complex sociopsycholinguistic activity involving not only the school, but the home and community.

- Approaches that integrate, rather than isolate, oral and written structures and functions of language, may be more appropriate from a developmental point of view, as well as more likely to engage the child. Reading enhances oral language skills and writing improves reading ability.

- The cognitive complexity of skills required for literacy learning is greater than that for oral language acquisition. The encoding of oral language into written symbols constitutes a level of abstraction beyond the sound-meaning association that a young speaker has achieved. Explicit instruction and later instruction may be necessary.

- Literacy requires motor skills that develop later than do oral articulation capabilities. This holds especially for graphic manipulation and, to a lesser extent, for the eye coordination required to read. These developmental factors should be taken into account in diagnosing reading/writing readiness and problems. Great caution should be taken in diagnosing; these problems are very complex and can stem from a variety of other factors as well.

Family and community issues. Children come to school after years of cultural and linguistic conditioning. These backgrounds can lend a rich diversity to a classroom, but also can be a challenge to the teacher and the schools. Implications of the diversity of culturally-determined applications for and styles of language include:

- Children coming to school may have varying expectations about how to do things with words. Functions of oral or written language may be more or less elaborated, may have differing structures, and may assign differing roles to participants. It is essential for effective instruction to be explicit about the expected functions, styles, and roles for interaction and language use in the classroom.

- Instructional styles in the classroom should permit children to use interactional styles and take conversational roles that are familiar. The curriculum should build on the strengths the child brings from the home, both oral skills (such as storytelling) and literacy skills (such as making lists or looking things up).

- Curricula such as the language experience approach that build on the child's own language are useful in bridging between familiar and unfamiliar uses of language, by building on the child's own interests.

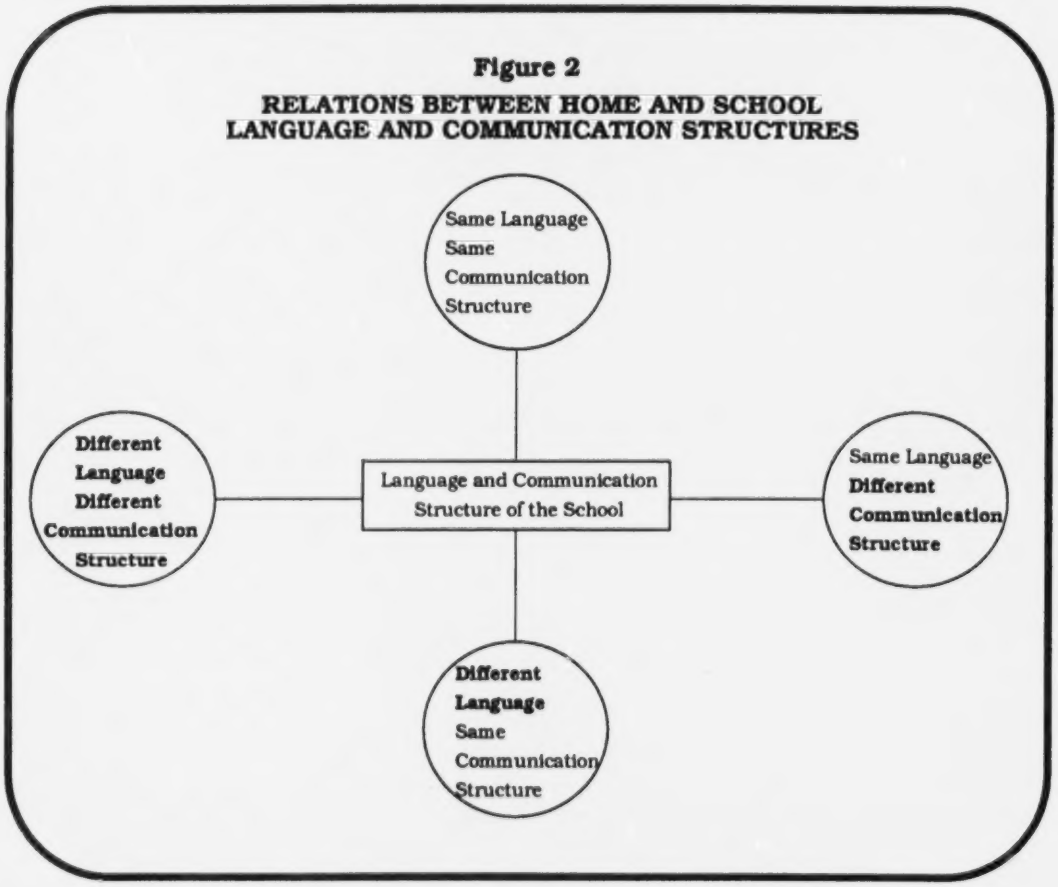
- Children learn a great deal from the models of their care givers. If their care givers are not literacy-oriented language users, these functions will not be reinforced in the home and they cannot assist their children in developing mastery of these skills and functions. Parent participation in, and understanding of, the functions of language required in the school is highly facilitative of the child's linguistic development.

C. LANGUAGE DEVELOPMENT IN BILINGUAL CHILDREN

In order to address the complex issues that surround (and often obscure) the development of general language skills in minority-language (and non-standard dialect) children and the development of fluent bilingualism (and bidialectalism), it is necessary first to clarify the relations that can hold between the communicative competence of the child and the demands of school. Figure 2 offers a model that takes into account the potential discrepancies between the child's home language and communication experience and the language and communication demands of the school.

Figure 2

RELATIONS BETWEEN HOME AND SCHOOL LANGUAGE AND COMMUNICATION STRUCTURES



Four language-related matches or mismatches between children and their school are possible:

- *Same language/same communication structure*: Child and school share a language and a set of norms about the use of language for communication, particularly for instruction and communication of information. Such a child readily understands both the content of the teacher's requests and responds according to expectations. A child from an English-speaking, literate, middle-class family of western European background might be expected to enter school with these congruences in his or her background.

- *Same language/different communication structure*: Child and school share a language, but not the norms for how language is used for communication. The child readily understands the content of the teacher's requests, but may not respond according to the teacher's expectations. For example, urban Indians or second-generation immigrant children may be monolingual English speakers, but their families' norms call for not pushing oneself forward and thus, they may never volunteer in class or may decline to respond orally, even when they know the answer to the teacher's question.

- *Different language/same communication structure*: Child and school do not share a language, but do share communication styles. This child faces the difficulty of learning the language of instruction, but may readily adapt to the school's learning style. An example might be a newly immigrated child from a highly literate family, used to learning through reading, although in a different language. Professional-class East Indian children in Britain provide an excellent example, as would children from academic or professional socioeconomic backgrounds immigrating to the United States from many countries of the world. Such a child has grown up in a home where literacy has a wide range of functions, as it does in school, and where performance of the skills under development in schooling is an expected activity.

- *Different language/different communication structure*: Child and school share neither a language nor communication patterns. The child may not be able to comprehend the content of instruction, nor respond, nor even make basic needs known. A monolingual English-speaking teacher may face this situation with children from minority language communities. Not only is the teacher's speech incomprehensible, but interactional and paralinguistic behaviors may be misinterpreted by the child. Stroking the head of a Pacific Island child, for example, would be interpreted not as a gesture of comfort, but of contempt.

Each of these relationships between child and school, and between child and teacher, differs. For each child appropriate pedagogical approaches must be developed. The latter three cases--where a mismatch of language and/or communication structure is present--are the focus of this section of the paper. These three situations should be viewed in an integrated fashion when bilingual education is discussed. Language and communication structure differences should be looked at as related rather than separate questions. Bilingual curricula and teacher training have tended to focus on linguistic aspects to the detriment of a comprehensive view of the full range of communication barriers faced by the child. Where there is congruence of language between child and teacher, the question of possible discrepancy in communication structures still needs to be carefully considered in developing classroom instruction. The mismatch of both language and communication structure presents unique problems for teacher and child, both of which must be simultaneously addressed.

Using this model of congruence between home and school language structure and usage, this section explores the following issues:

- What are the cognitive and linguistic processes that underlie development of bilingual language competence?

- What is the role of social factors and of home interactional structures and functions for language in development of children's bilingual competence?

- What are appropriate educational practices to promote successful first and second language development in bilingual children?

Primary focus will lie on bilingualism, as it is the more extreme case of language dissonance between home and school. It is critical to bear in mind throughout, however, that discontinuities in communication between teacher and child also commonly arise when the two speak different dialects of the same language. And, in such situations, communication structures may vary more than linguistic structure comparisons would suggest.

1. Cognitive and Linguistic Processes

In the United States, bilingualism is finally being recognized as a cognitive, as well as a social and economic asset, as has long been held in most of the rest of the world. Recent research has demonstrated that bilingual children gain in cognitive flexibility and higher order thinking skills. The advantage of developing bilingualism in children is no longer a question, and we are increasingly witnessing renewed emphasis on offering monolingual children the opportunity to learn a second language during their schooling.

For many children, however, learning a second language in school is not a choice, but a necessity. This section looks at the general cognitive and linguistic processes involved in second language-learning. The focus will fall on the less optional second language-learning situation, i.e., that of children whose home language is not the primary language of their school. The acute needs of these children and the early age at which second language capability becomes a necessity present unique challenges to educators. Instructional decisions should be based on a solid understanding of the cognitive demands that non-mother tongue schooling places on children.

Age-grading in second language learning. For a child, learning a second language has strong parallels to acquiring a first language. While there are many factors that influence the success of second language learning, it is first necessary to recognize the impact of age and cognitive development. Developments and refinements in first language acquisition extend into middle childhood, youth, and even adulthood. Learning a second language is influenced more by sociocultural, conceptual, and effective processes. Figure 3 shows some key aspects of linguistic competence and the relative ease with which they are learned at different stages in life. Although oversimplified, it suggests how educators might begin approaching second language instruction.

FIGURE 3

AGE-GRADING OF EASE OF DEVELOPING SECOND LANGUAGE COMPETENCE

	YOUNG CHILD	SCHOOL-AGED CHILD	ADULT
Pronunciation	Easy →	Hard →	Harder
Grammar	Hard ←	Easy →	Hard
Conceptual	Hard ←	Easy ←	Easier
Psychological/ Behavioral	Easier →	Easy →	Hard
Interactional	Easy →	Hard →	Harder
Literacy	Hard ←	Easy ←	Easier

The age-grading of second language acquisition skills suggests when learning could be most efficient, although few schooling situations permit such optimization.

As Figure 3 suggests:

- Paralleling the natural stages of first language acquisition, the young child has the greatest flexibility in oral articulation. After early childhood, it seems increasingly difficult to acquire accurate pronunciation.

- The developmental ease of acquiring a second grammar is somewhat more complicated. Younger children readily learn the structures, but it appears that older children quickly attain higher levels of proficiency.

- Just as some conceptual aspects of language are too complex for very young children, so it becomes easier with greater cognitive development to acquire complex concepts in a second language as well.

- Behavior and adaptation is easier for younger people. Their social adaptability enables young children to readily adapt psychologically to behaviors that adults would find awkward. Children are usually not as uncomfortable with making mistakes, a problem that becomes very limiting for many by the time they reach adolescence.

- With regard to literacy in the second language, as the section on first language acquisition indicated above, younger children are at a disadvantage, as they are still developing the cognitive skills required to understand reading and writing. Adults are the most ready learners of second language literacy; because they have wider exposure in addition to the requisite cognitive skills that enables them to comprehend the decontextualized language often found in written form.

For overall speed in acquisition of a second language, recent research suggests that teenagers and adults are more efficient learners than primary school-aged children. In immersion programs, students in grades four through seven accomplished as much in second language acquisition in one year as did children in grades one through three in three years of comparable instruction.

These stages of facility in second language acquisition sufficiently approximate the first language acquisition process to suggest to some researchers that natural child language development should provide the model for training in second languages. Planning education for speakers of minority languages thus presents a potential dilemma: at the age of beginning school, children may not yet be at the stage of cognitive or first language development that is ideal for quickly learning a second language. However, they may be required to enter into interactions where knowledge of the school language is necessary. The section below on appropriate educational practices for bilingual children will address issues that arise at this interface, including staffing and curriculum.

Transference of skills from first to second language. First language acquisition offers children a model for what language can be and has provided the experience of decoding the set of linguistic rules their care givers exhibited. Based on this experience, second language learning can be far more rapid. Most researchers indicate that once language skills are mastered in the native tongue, they will readily transfer to the second language as soon as sufficient examples of their use are experienced.

General knowledge and academic skills as well as language skills of a child whose cognitive development is well under way transfer readily to a second language. For example, knowledge and skills in content-area subjects such as science, math, and social studies, as well as the skills required for speaking, reading, and writing, will not have to be relearned in the second language. New names for familiar concepts and new grammatical constructions for expressing them will, however, need to be instructed. Thus, the most important foundation for second language learning is a solid base of first language skills.

Very young children who are encountering the school language as a foreign tongue face considerable difficulty. They are trying to learn and simultaneously to express concepts that are new to them. These concepts may have been introduced in just one or the other or in both languages. This is easily seen in complementary sets of vocabulary that bilingual children possess, for example, knowing cooking and food terms only in the home language and classroom object terms only in the school language. Less noticeable, but educationally more important, are complementary knowledge bases for abstract concepts, e.g., political constructs, math concepts, science principles, which may make it difficult for the child to quickly transfer bodies of knowledge and groups of skills derived through experiences in one language to learning experiences presented in the other language.

Furthermore, the sequence in which the development of new concepts occurs in the first language may differ significantly from that in the second language, depending on the differing emphases of the native and second language, the cultures of the home and the classroom. For example, Navajo-speaking children appear to categorize objects much more frequently along the dimensions of shape and use, and less frequently by color and size, than do English speakers of the same age. The Navajo language states those dimensions in the basic grammatical patterns of the language. Such cultural/linguistic differences can be successfully transferred as accelerated skills, if instruction in the second language builds on first language strengths and structures.

Although still subject to considerable discussion, recent research finds that language and cognitive development are not separate for young children, and in the case where two languages are being learned, confusion can easily occur. This confusion and consequent merging of the two languages is minimized when the choice of language is associated with specific speakers, that is, when adults in the environment consistently use one or the other, but not both languages alternately, with the child. This confusion is usually overcome quickly and some children identify language by usage and situation by the age of three, using each with the correct speakers.

Problems occur in grammar and speech for children who have developed control over their first language and naturally carry over the habits of their native language into the second. For example, they are conditioned to hear all sounds in terms of the sound system used in their native language, and so may have trouble hearing slight, but significant, differences. Spanish speakers' confusion of English *ship* and *sheep* reflects the fact that these vowel sounds are not distinctive in Spanish, as does Japanese speakers' confusion of the English *r* and *l* sounds, a semantically insignificant variation in their native language. These are conditions that are not causes for concern among young second language learners, because they are still very flexible in their sound articulation ability; they would, however, require careful work with older learners.

Specific issues to consider in planning include:

- After experiencing first language acquisition, second-language-learners can learn more rapidly.
- Once language skills are mastered in the native tongue, they will readily transfer to the second language.
- Knowledge of content area subjects, as well as skills for speaking, reading, and writing, transfer readily to a second language.
- The most important foundation for second language learning is a solid base of first language skills.
- The sequence in which the development of new concepts occurs in the first language may differ significantly from that in the second language.
- Ease of acquisition of specific skills in a second language varies and relates to age of the learner.

It is thus essential that developmentally-appropriate and developmentally-challenging aspects of learning be applied to second language instruction. Building on developed first language capabilities, whole skill clusters can be drawn from the native language into the second, not just specific vocabulary, concepts, or structures.

Factors impacting rate of second language learning. As the above discussion indicates in learning a second language, children progress through the same natural development process as they did in acquiring their first language, but at a different pace, and in some cases, a different order. The rate of learning varies greatly by individual and will depend on linguistic but also on contextual factors, including:

- Age and cognitive development
- Level of first language proficiency
- Amount of second language exposure received
- The extent of need and opportunities to communicate through the second language
- The roles of the speakers of the first and second languages in the learner's life
- The extent of transference of skills from first to second language
- On several dimensions and varying by age, the extent of dissimilarity between first and second languages, including their sound systems, grammars, and writing systems
- Level of motivation and confidence
- The amount of encouragement and support received from parents, teachers, and peers

In working with speakers of minority languages, it is also necessary to factor in their informal learning. For example, residence in a linguistically-mixed neighborhood, use in shops, learning through the media. These provide opportunities for at least passive exposure to the target language and, also, different models for speech from those presented in school.

Finally, the rapidity of second language learning is partially determined by internal factors, such as: age, first language ability, the nature of the situation in which the second language must be learned, and the structure of the social relations between the first and the second language speakers.

2. Context Factors in Development of Bilingualism

This section addresses the plethora of context factors that affect children's development of bilingualism. Some of these have been alluded to in the overview of American language policy with which this paper began. The importance of these context factors cannot be overemphasized. As research has shown time and again, attitudinal factors are critical determinants of second language learning.

Learning a second language is a challenging task at any age. It has been amply demonstrated that among both children and adults, a positive attitude toward the target language is a critical factor in successful second language learning. Attitude toward the target language and the home language, personal identification with the target language, and the apparent utility of the target language are all critical variables.

In no part of the world are questions of language choice without strong political overtones. In the United States, issues of language take on profound social dimensions as well. As the first section of this paper briefly recounts, American language policy has strongly favored encouragement of English and assigned to the schools the task of assuring English competency in young people. This pro-English tradition has been so strong that many American cultural heroes have proudly asserted their monolingualism. This contrasts sharply with most other countries where multilingualism is expected of persons in leadership positions.

Status of target and native languages. The school language is the "high" status language while home languages may be "high" or "low," depending largely on the esteem in which their speakers are held. "High" languages

appear in school curriculum as, for example, French, Japanese, Russian, Castilian Spanish, German, and Latin are current course offerings. Cultural associations may make a language "high" even though this status is not accorded to its speakers. A strong tradition of literary output may enhance a language's status, as, for example, Greek is believed to be a sophisticated tongue because of American respect for the culture of ancient Greece.

Minority-speaking children, thus, by virtue of their mother tongue, find themselves somewhere on a social hierarchy continuum. Most immigrants and indigenous peoples generally discover that their language is not highly respected. The attitude toward the language may also be attached to them. The relatively higher respect accorded English can serve as a positive motivation to learn a second language. However, this will only be the case if the child desires the rewards associated with speaking and writing it.

In addition to these potentially positive attitudinal factors related to the target language, its speakers, and the learner's perception of it, the social standing of the child's first language is also a factor influencing acquisition of a second language. Not surprisingly, the "lower" the child's own language on the social hierarchy, the more difficulty the child may have in second language learning. And, the more children internalize these negative attitudes toward their own language and culture, the lesser the chance for success in schooling. Research has shown that there is a direct relationship between the esteem accorded children's own language and their success in learning a second, school-associated language. Indeed, parents' attitude to their family language is shown to have an effect on children's learning. Evidence indicates that a positive and prideful attitude toward the home language and its maintenance enhances children's language achievement in both their first and second languages.

In part, these effects appear to derive from the social distance children cannot personally bridge and in part they appear to be a consequence of reduced self-esteem about their own language ability. Further, self-confidence, willingness to take risks, and extroversion are key personal attributes that relate positively to second language proficiency among those beyond early childhood. Such attributes are not enhanced when children encounter social or linguistic denigration.

In educational planning impact of language status should be considered in ways such as the following:

- Cultural associations may make a language "high" or "low," depending on the esteem in which their speakers are held.
- The "lower" children's own language is on the social hierarchy, the more difficulty the child may have in second language learning or conversely, children may be motivated to abandon their own language in favor of the "high" language.
- A positive attitude toward their native language and its maintenance enhances children's language achievement in both their first and second languages.

Personal identification. Another key element determining the development of fluent bilingualism is personal identification with the target language and its speakers. The greater the personal and social distance learners perceive between themselves and the speakers of the target language, the more difficult this identification becomes. If, in addition to perceived and real distance from English speakers, children also receive feedback that they will be unable to bridge that distance, then the likelihood of developing proficiency declines. It is in this way that racially and ethnically discriminatory behavior can radically reduce a child's chances for successful acquisition of bilingualism.

On the other hand, if children come to personally associate themselves with other children or adults who are English speakers, the development of proficiency is greatly enhanced. This has been proven especially by the adoption of native-like pronunciation by older learners. Here, then, the potential of social mobility must be recognizable for the learner if the distance is to be perceived as bridgeable. Naturally, the "lower" the native language is relative to the school language, the more difficult this leap.

Educationally, the implications of this pratice include:

- Personal identification with the target language can enhance second language learning, so opportunities to engage in personal interaction with native speakers is desirable.

- Discriminatory or disparaging behavior toward several learners by speakers of the target language can impede the development of identification and delay learning.

Perceived usefulness. Closely associated with personal identification with the target language is the learners' perception and/or experience of its utility in their own lives. Again, if the second language is to be fluently acquired, it must be acquired for use in all aspects of life, as a first language has a full range of functions. Many minority language children do not believe they will be interacting with English speakers except in school, so the second language is of interest to them only to the extent that they value success in schooling.

If, however, children experience a full range of opportunities to use English and recognize that English can be useful in attaining personal objectives, then motivation to learn is high. Thus, it is essential that instruction offer meaningful uses of the target language, as well as opportunities to try out these applications. Further, the utility of learning to speak the second language and learning to read and write the second language must be independently established, if both are to be enhanced.

Educationally, the implications of this practice include:

- Motivation to learn the second language is closely tied to the learner's perceived uses for that language.

- Language usage is situational, so proficiency in just one style or function will not prepare second language learners to perform well in other situations where they wish to apply their skills.

Teacher knowledge of the home language and communication structure. An additional obstacle to proficient bilingualism is that school staff may not be personally acquainted with the child's language or communication structure (there is little incentive to learn "low" languages), so they may not be able to build on the child's native language ability. Knowledge of the child's language would enable teachers to communicate with the child and to assist in bridging gaps in comprehension, as well as in identifying areas for targeted instruction based on ways in which the two languages contrast. It is the "low" languages that are very common among our minority-language schoolchildren. Many teachers know French, for example, but there are very few French-speaking children in the schools. Spanish fortunately, is fairly widely studied. Few staff, however, are familiar with languages such as Native American or Southeast Asian they may encounter in their classrooms.

Further, the cultural, as well as social, distance between the native and the second language impacts the acquisition process. Communication structure differences often go unrecognized and unaddressed in schooling, becoming impediments to second language learning, rather than being used as bridges to communicative competence in the second language. The section above which described the wide variety of family and community teaching and interaction styles suggests just some of the ways children's assumptions for uses of language, roles in conversation, and general interactional behavior can vary from those the teacher imposes in their classroom. As with familiarity with the child's language, familiarity with the child's communication structures can positively affect the quality of the learning environment for the child. For example, children who come from communities which highly value the expressive and aesthetic functions of language, such as Native American cultures where storytelling is a high form of art, may have well-developed skills in these functions. Such children may, however, be less familiar with commonly-stressed school functions of language such as problem solving and information giving/gathering. Knowledge of the functional strengths and weaknesses of the child's home language community can serve as a basis for developing instruction and can provide opportunities for children to engage in activities they excel in, as well as those that are challenging and unfamiliar.

These language-status issues impact powerfully on children who speak non-standard dialects, whether of the school language or of their own tongue. Oral language is widely considered "lower" than the style of language used for literacy. Thus, these children are often viewed as having lower linguistic skills than children whose language conforms to literary standards. This issue is not limited to dialects of English. It has been raised , for example, as a hindrance in the education of Spanish-speaking children in the United States that their Spanish-speaking teachers may require them to switch dialects to standard forms of Spanish. Many Southeast Asian students from preliterate societies also face the language status issue, sometimes without the background of any literacy skills.

Insights of interest to educational planners include:

- Knowledge of the child's language would enable teachers to communicate with the child and bridge gaps in comprehension.
- Familiarity with the child's communication structure can positively affect the quality of the learning environment for the child.
- Knowledge of the functional strengths and weaknesses of the child's home language community can serve as a basis for developing instruction and providing opportunities for children to excel.

Non-standard-speaking children often lack linguistic self-esteem and may develop strongly negative attitudes toward the "high" language. If they speak a dialect of the school language they also have less incentive to learn it, because they readily understand it and can generally make themselves understood. For these children, demonstration of the utility of the standard language and a bridge to personal identification with it are essential prerequisites to their educational success. Thus, if children have a negative attitude toward the target language or their own language, or are insecure about their own language or their linguistic ability, development of bilingualism or bidialectalism can be severely impaired. In the charged political and social environment in which discussion of language takes place in the United States, such factors loom large.

3. Educational Practices that Promote Language Development in Bilingual Students

A great deal has been written about appropriate pedagogy for minority language children, and general consensus still eludes us. There has also been a considerable amount of research into interactional styles, but the connections to specific pedagogical practices, while posited, have not been widely developed as practices. The paragraphs below bring together findings about what can enhance proficient bilingual development among children who come to school speaking minority languages. Research that addresses instruction in second language for children whose language matches that of the school is not included. Research that is based on interface between "high" languages, such as the case of Switzerland's French, German, and Italian or Canada's English and French, is cited with caution, for the social and cultural factors mentioned above strongly impact the situation in the United States.

Developmental issues. The extended age-grading of first language acquisition and ongoing cognitive development through adolescence have implications for education of minority language children. There are sequential considerations to consider in language learning; certain skills need to be in place in the first language before those skills can transfer efficiently to the second language. Cognitive development stages should be followed and age-appropriate levels of instruction should include consideration of prior learning in the first language.

Educational planners should consider that:

- Efficient development of second language skills requires a solid base in a first language, and some aspects of the first language are not sufficiently in place in the early years of schooling. For example, a British study found that eight-year-olds starting to learn French did not gain as much over five

years as did children starting at age 11. However, this depends a great deal on the emphasis of the class on oral or grammatical issues.

- For some aspects of language, earlier is better; for others, ease of learning and/or level of proficiency attained in the second language comes with increased age of instruction.

- Transference of skills from the first language enables learners to acquire the second language more quickly. However, this cannot occur until the structures in the first language are firmly in place and unless there is sufficient exposure to the structure in the second. Skills not fully mastered in the first language should not be instructed in the second. Cognitive development stages should be followed.

- For younger children, inductive teaching strategies that do not depend on explicit teaching of rules of grammar, etc., are appropriate. For older learners, some structural analysis may be useful. However, level of proficiency is not an accurate indicator of the ability to analyze language structure or to benefit from an analytic approach to instruction.

- Content of instruction should be based on students level of cognitive development and prior learning in their first language, not on their second language proficiency level.

Use of the first language. The first language has an important place in the education of children whose language differs from that of the school. It has become apparent that children who do not have a firm base of knowledge in their first language have trouble establishing skills in the second language. Complex sociocultural issues also play a part in the motivation of learning and the esteem in which the child's first language is held and may have impact on the appropriateness of certain teaching techniques. While much is still to be learned, some findings are emerging which can be cited with caution:

- A significant, albeit tentative, body of research suggests that, perhaps through the primary grades, the first language should be employed with minority-language speakers. Once the first language is well established, the language learning skills transfer more easily to a second language.

- While immersion in the second language has proven a successful technique with children learning a second "high" language, evidence with "low" language children indicates that programs with substantial components in the native language may be more successful. For example, a comparative study of Navajo-speaking children in an English immersion versus bilingual program found the latter children ultimately more proficient in English.

- Some recent research suggests that literacy is best learned first in the native language, as decontextualized language is difficult and late to learn. Literacy skills transfer readily to a second language once firmly in place, and use of the minority language in instruction develops speakers' self-esteem and self-confidence. Again, here, there is a distinction between minority-language speakers and optional second language learners, who have had success with first-language literacy.

- Children who have opportunity to discuss concepts in their native language with other children or with adults appear to have better academic success.

- In primarily target-language classrooms, reiteration or clarification in the native language is helpful to marginally proficient students.

- Presence in the classroom of a native or fluent speaker of the child's language is especially important with younger children. Clarity of role and of choice of language between teacher and native-speaking aide should be maintained.

- Parental attitude should be taken into account when setting policy on language of instruction, as home reinforcement plays a critical role in school success.

A World Bank study of international bilingual education (1982) found that a mixed, context-sensitive approach to policy development is most appropriate:

> On the one hand, using the second language for initial primary education may be appropriate in situations where the child's first language has developed to the level where he [or she] has the cognitive and linguistic prerequisites for the acquisition of literacy skills, where the parents freely choose instruction in the second language, and where the wider community views the first language of the child as having a status tha' is as high as or higher than that of the second language. On the other hand, using the first language for initial primary education may be appropriate in situations where the child's first language has not developed to a level where he [or she] has the cognitive and linguistic prerequisites for the acquisition of literacy skills, where the parents freely choose and work for instruction in the first language, and where the wider community view the first language of the child as having a status which is much lower than that of the second language.

Instructional practices. The instruction of minority language children is made highly complex by the possible interference derived from lack of language skills. For example, it is important that teachers monitor second language learners closely, because failure to understand the content of the lesson, or even the instructions leading into the lesson, can result in low performance. Also, second language learners need frequent and immediate feedback, so they can learn to judge their language performance. Literacy skills cannot be judged from speaking performance because the decontextualized literacy skills are more difficult. While this area is far from fully understood, there are a variety of instructional practices which are widely agreed on. These include:

- Sustained interaction in the target language is necessary for proficiency. In classrooms with many children who natively speak the school language, instruction should place non-native speakers in close interaction with them. In classrooms with few proficient children, more teacher-centered instruction will provide the maximum exposure to the target language.

- Second language learners require careful monitoring, as failure to understand content can be compounded by failure to understand the language of instruction. They also require frequent and immediate feedback on their performance.

- For at least some children, especially those from communities in which oral testing is not a part of the home learning style, spoken drill and practice may retard proficiency in the target language. Structured oral practice has not proven to be necessary for oral proficiency.

- Vocabulary knowledge in the target language is closely associated with academic achievement, but need not be taught as a separate skill. Effectiveness of out-of-context vocabulary drills has not been demonstrated.

- Transitional bilingual programs do not support language development when they constitute a shift of emphasis away from the first language to the extent that further development of capability in the first language is not fostered.

- Children with proficient second language speaking skills cannot be assumed to have equivalent second language literacy skills, as the speaking skills tend to be more contextualized and literacy skills are decontextualized. Writing requires specific emphasis with second language learners and should be taught together with, not subsequent to, oral language and reading.

- Second language learners are rarely familiar with the communication structures assumed in the schools. Teachers who use active techniques and are explicit in stating their intentions and expectations are more successful with minority-language children. Tactics such as outlining,

demonstrating, and using multiple modes of communication (visual, auditory, kinesthetic, and tactile) are helpful.

- Instruction should be bicultural, as well as bilingual, integrating objects, concepts, and subject matter from the child's home language and culture.

- Not only the content, but the structure of instruction can be designed to reflect the child's linguistic and communicational strengths. Teachers are experimenting with less individual performance-oriented pedagogies, for example, with children from language communities in which verbal instruction and performance are uncommon. Or, for children who commonly learn from peers or older children, rather than directly from adults, approaches using high school students to teach elementary students have proven beneficial to the academic success of both.

- Just as parents do with their two-year-old first language learners, teachers should respond to the meaning intent of students' language, rather than responding in terms of the correctness of the linguistic form.

It is important to note that there is no single instructional approach or set of approaches that is appropriate for all minority language children. As Wong-Fillmore and her colleagues demonstrated through comparative study of Chinese and Hispanic children (1985), the communication structures that emanate from a child's home experiences make differing pedagogies more and less appropriate. In that study, for example, Hispanic children gained more proficiency from interaction with English-speaking age-mates, while Chinese children gained more from interaction with the teacher.

Integrating language development and academic learning. Approaches that integrate language development with content learning have proven successful. Specific findings include:

- Second language learning is facilitated and the learner is motivated when there is clear functionality to the language learning. Subject area and language learning should be integrated so that the focus for the child is on content learning primarily, with second language acquisition occurring instrumentally.

- No academic content can be successfully learned if the requisite language skills are missing. Until full proficiency is attained, language development should be a focus in all subject areas.

- Aspects of language are most easily acquired when tied to a language function, such as content knowledge attainment. Vocabulary, for example, is best taught and best retained when tied directly to the child's need to comprehend a content area.

- Integrative approaches, for example, whole language, cannot be assessed accurately with most widely-used norm-referenced instruments. Alternative assessment methods, including observation, need to be developed and applied.

Roles for families. Educational research generally continues to stress the importance of parent and family involvement in children's schooling. This is especially the case with families who are not themselves well-educated or familiar with the activities, content, and expectations the child encounters in school. For most minority language children, parental knowledge of schooling is very limited. Findings that specifically pertain to the involvement of minority language-speaking parents include:

- Parent-child engagement in literacy activities is one of the most powerful stimulants to language and literacy development. If parents themselves are illiterate or not literate in the school language, children's achievement can be enhanced by parents' literacy training and/or involving parents in encouraging their child.

- Positive attitudes on the part of parents toward both the target language and the native language enhance children's language development and second language acquisition.

- Basic education for parents who do not speak or do not read the school language can enhance their children's language achievement.

- Caretaking of children is differently distributed in various communities and schools' family involvement efforts should recognize the family in the form in which it serves as the support system for the child.

- There are indications of direct relationships between the extent of parental involvement in programs for young children and children's cognitive development and success.

School organization. There is only limited research that addresses ways in which schools can best be organized to enhance the success of bilingual students. Initial studies suggest the following approaches may hold promise:

- Second language learners should not be isolated in separate programs. When children require special assistance in classrooms, pull-out sessions are better than entirely separate tracking.

- Experiments with early childhood centers, bringing together children three to eight or nine years old and focusing around a language development curriculum, show promise. The transition from the center would coincide with the probable optimum age for second language learning.

- Multi-age and multi-grade groupings may be useful with bilingual children, as the first language skills and cognitive development level may be higher than their second language skill level.

- Structures that enable older students to tutor younger students may be useful with many language groups. This practice can be especially useful where staff do not know the children's language and/or materials in the first language are lacking. Some criticism of this practice insists children should learn, not teach, but there are indications that tutoring can lead to greater learning in the older child as well.

- Some schools have found that acknowledging the home language of a large proportion of students as an official school language serves as a way of symbolizing commitment to the bilingual student that encourages children and facilitates parental involvement.

- Even more than their majority-language peers, minority-language adolescents are greatly at risk of dropping out of school. Some schools are considering reorganization and refocus of the middle school as a possible strategy for re-engaging their bilingual students.

- Staffing is often a challenge for schools with minority-language student populations. If there are few speakers of a language, it may be difficult to cost-effectively meet their unique needs. If there is a large cohort of same-language students, specially skilled staff may be desirable, but unavailable. There is as yet little reliable research on the most effective ways to utilize staff in classrooms where there is a monolingual teacher and a bilingual, uncertified teacher aide.

While the above list of effective and promising practices for bilingual students is wide-ranging, it is far from complete. It does, however, suggest that a consensus is emerging in at least some areas of education, e.g., developmentally-appropriate practices, integration of language and literacy skills throughout the curriculum, and appropriate communication structures. And the importance of language development, for the educational success of majority-, as well as minority-language children has seldom been more widely acknowledged.

D. RELATED POLICY ISSUES

The above sections have amply demonstrated that language development is a complex and compelling issue for the education of monolingual as well as bilingual children. The current high interest in these questions reflects the appropriate role of language development at the very core of the early school curriculum. This renewed focus on language development is convergent with other major issues of current interest to policy makers, including curriculum reform and school restructuring, as the sections above have shown. In addition, several other policy areas are related, including early childhood education, developmentally-appropriate practices, at-risk children, and parental involvement in schooling.

Early childhood education. Research findings from longitudinal studies of the effects of preschool indicate that a strong base in language can, indeed, have long-term effects for success in schooling and in adult life. The two 15- to 20-year follow-up studies of 1960s intervention with at-risk preschool children (the widely-cited HighScope Perry Preschool study, which followed urban youngsters, and the Appalachian Educational Laboratory HOPE Project, which served rural children) both used language development-centered curricula (Weikart 1984; Gotts 1987).

These children had better language skills when they entered school and retained this advantage through the crucial primary years--years during which native language structures solidified, interactional skills expanded, and literacy-related and other cognitively complex language skills developed. While their academic achievement leveled out in comparison to the control groups in the later years of schooling, the long-term outcomes for these children were far better than average. Among other findings, preschool participants seemed more likely to complete school and to go on to postsecondary education; they seemed more likely to be gainfully employed and had higher incomes; they had lower rates of delinquency, teen pregnancy, and welfare-dependence; and they had more positive attitudes toward education and higher aspirations for themselves and their children. A new study, being released soon, refutes the Perry Preschool Study and challenges the data that showed that changes in cognitive ability persisted into adulthood.

Developmentally-appropriate practice. The research into language development and the age-grading of first and second language skill acquisition has stimulated the call for developmentally-appropriate education. This movement, emanating primarily from early childhood educators, has gained sufficient ground that many states are experimenting with early childhood centers, made up of preschool through the primary grades. In these centers, age groupings are sacrificed to groupings based on level of cognitive development.

Curricula that are modeled on developmental appropriateness are heavily language centered. They have been particularly cited as promising for bilingual children, whose cognitive and first language skill level are often not matched by their second language skills. The early childhood center structure is flexible enough to accommodate these variances.

At-risk children. The widespread concern with "at-risk" children and youth reflects, in large part, the increasingly multilingual and non-standard-speaking composition of the student population. Approaches based on language development address the needs educators have recognized in these children. Language development research argues that all children--English-speaking and non-English-speaking alike--need to be offered instruction that assures a solid grounding in first language skills. Thus, it does not suggest that non-English-speaking children have somehow different needs, but rather that a developmental curriculum is appropriate for engaging all children in learning and, especially, learning to use reading and writing.

The longitudinal studies of preschool children confirm that effectiveness of the language development focus with majority- and minority-language children. Moreover, the identification of the need to engage potentially at-risk children in higher order and critical thinking, in order to engage them in schooling, is well-met by emphasis on higher order cognitive skills that come through intensive focus on language skill development.

Parent involvement. Finally, the language development research recognizes the intergenerational, familial, and community context in which children develop their basic learning and living skills. It specifically offers guidance

on how, when, and why parents should be involved in their children's schooling, supporting the now-general call for family participation in education.

The research on communication structures goes further, articulating strengths in learning structures from the family environment that can and should be brought into schooling. This research places parents in a far more legitimate and educationally valuable role than is realized in approaches to "parents as first teachers" that only envision parents as augmenting the content and style of instruction offered by the school.

BIBLIOGRAPHIC NOTES ON KEY SOURCES

These sources, selected from the extensive range of research on language development, bilingualism, and educational policy, offer information that may be of most interest to policy planners. They represent a range of perspectives on the issues addressed in this paper. A complete bibliography of materials consulted is available on request.

A. Background and Current Policy Context

Cummins, J. (1985). "Functional Language Proficiency in Context: Classroom Participation as an Interactive Process." In paper for Language Development Specialist Academy. Portland, Oregon: Northwest Regional Educational Laboratory.

> This paper focuses on the issue of how minority students' proficiency in English is related to their ability to participate competently in a monolingual English classroom. It reflects the tenant that participation in academic activities is an interactive process. The author emphasizes the educational merit of the entry and exit policy and provides an interactive framework for the notion of "competent academic participation." Also analyzed is the relationship between competent academic participation and the construct of "Academic Learning Time" (ALT). This paper has special merit for policy makers.

Cummins, J. (1986). "Empowering Minority Students: A Framework for Intervention." Harvard Educational Review, vol. 56, no. 1, pp. 18-36.

> A theoretical framework for analyzing minority students' school failure and the relative lack of success of previous attempts at educational reform, such as compensatory education and bilingual education is presented in this paper. The author suggests that these attempts have been unsuccessful because they have not altered significantly the relationships between educators and minority students and between schools and minority communities. Ways in which educators can change these relationships are offered, thereby promoting the empowerment of students which can lead them to succeed in school.

Hakuta, K. (1986). Mirror of Language, The Debate on Bilingualism, New York, New York: Basic Books, Inc.

> Bilingual education is discussed with a sense of the historical, social, and political dimensions of the issues. The author outlines the controversies, and the heated emotions and tries to clear up misconceptions, although he admits that the conflicts in the field run very deep.

Hakuta, K. and Gould, L. J. (1987, March). "Synthesis of Research on Bilingual Education." Educational Leadership, vol. 44, no. 6, pp. 38-45.

> This article reports that substantial research supports teaching language minority children in their native language and suggests that bilingualism is a cognitive asset. This paper has special merit for policy makers.

Heath, S. B. (1986). "Socio-Cultural Contexts of Language Development." In Beyond Language: Social and Cultural Factors in Schooling Language Minority Students. Los Angeles, California: Evaluation, Dissemination, and Assessment Center, California State University, Los Angeles, pp. 143-186.

> This paper considers how children from some of the different language minority groups in California learn ways of using language in their homes and communities. Two points are made: (1) For all children, academic success depends less on the specific language they know than on the ways of using

language they know; and (2) The school can promote academic and vocational success for all children, regardless of their first-language background, by providing the greatest possible range of oral and written language uses.

Heath, S. B. (1983). Ways with Words: Language, Life and Work in Communities and Classrooms. New York: Cambridge University Press

A description of how differently English is used in the homes and lives of different families living in a single community. Policy implications are stated.

Kloss, H. (1977). The American Bilingual Tradition. Rowley, Massachusetts: Newbury House.

The author presents an overview of the larger legal and political history of language in education in the United States.

Philips, S. U. (1972). The Invisible Culture: Communication in Classroom and Community on the Warm Springs Indian Reservation. New York and London: Longman.

This reference discusses recent studies of North American Indian education problems and suggests that, in many ways, despite speaking the same language, Indian children are not culturally oriented to the ways in which traditional classroom learning is conducted. Research with the Warm Springs Indian Tribe of Oregon is described, especially differences of dialect between the Warm Springs students' community dialect and the Standard English of their teachers. This book is an important study for teachers as well as policy makers.

B. Language Development in Children

Adams, M. J. (1990). Beginning to Read: Thinking about Learning and Print, A Summary. Urbana, Illinois: Center for the Study of Reading, The Reading Research and Education Center, University of Illinois at Urbana-Champaign.

A general audience-oriented summary of Adams' major work overviewing recent research on learning to read. It outlines the pros and cons of various approaches to reading instruction and specifically addresses working with the under-achieving child.

Cazden, C. B., John, V. P., and Hymes, D., eds. (1972). Functions of Language in the Classroom. New York and London: Teachers College Press.

Authors from several disciplines focus on language behavior in the communication between mothers and children and teachers and students in classrooms. An overarching principle is to start where children are, using the classroom and community for guidance. The papers speak to certain linguistic and sociolinguistic differences, but the authors rely on the readers to apply the ideas to their unique situations. This paper has special merit for policy makers.

Conklin, N. F. and Olson, T. A. (1988). Toward More Effective Education for Poor, Minority Students in Rural Areas: What the Research Suggests. Portland, Oregon: Northwest Regional Educational Laboratory.

This report summarizes recent research regarding effective education of poor, minority students in rural areas. It is specifically directed towards policy makers.

Delgado-Gaitan, C. (1989). "Classroom Literacy Activity for Spanish-Speaking Students." Linguistics and Education, vol. 1, no. 3, pp. 285-297, Norwood, New Jersey: Ablex.

This study examined classroom literacy activity of second-grade Spanish-speaking students. Twenty-five students were observed in their respective high and low reading groups. On the surface, children appeared to receive similar types of instruction. The high group, however, received much less rote memorization instructions than did the low reading group. In spite of the differential treatment of reading groups, the findings showed that neither the high nor low group received instruction in which they could fully develop verbal cognitive skills. This was evidenced by the teacher-student interaction about the text and in the students' workbook writing assignments.

Genesee, F. (1986, June). "English Acquisition and Academic Proficiency: Significant Immersion Instructional Features." Northwest Educational Equity Newsletter. Portland, Oregon: Center for National Origin Equity, Northwest Regional Educational Laboratory.

The author discusses immersion instructional features and compares it with English-as-a-second-language instruction. Strategies are provided for making second language input comprehensible to the second language learner and intrinsic and extrinsic motivation for learning is discussed. Three features are identified as important for successful language learning in school: (1) integration of academic and language learning; (2) a learning environment that promotes negotiation of meaning through students' interaction with one another and with their instructional materials; and (3) a curriculum of study that engenders intrinsic motivation to learn academic material primarily and language incidentally.

Kessler, C. (1984). Language Acquisition Processes in Bilingual Children. Bilingual Education Paper Series, vol. 7, no. 6. Los Angeles, California: Evaluation, Dissemination, and Assessment Center, California State University, Los Angeles.

The process of children becoming bilingual is examined in this reference, including three types of bilingualism: (1) simultaneous bilingualism in very young children; (2) sequential bilingualism in preschool children; and (3) sequential bilingualism in school-age children below the age of puberty. Four developmental components in the acquisition of communicative competence are presented: (1) grammatical competence; (2) sociolinguistic competence; (3) discourse competence; and (4) strategic competence. Through this discussion, similarities and differences in the basic processes accounting for monolingual and bilingual language development are outlined. The paper targets policy makers and teachers involved in research and planning.

Morrow, L. M. (1989). Literacy Development in the Early Years: Helping Children to Read and Write. Englewood Cliffs, New Jersey: Prentice Hall.

Some of the recent "dramatic changes" in our understanding of literacy development are presented in this reference. Also discussed are certain conditions that promote first language learning. These same conditions promote total literacy development. The value of immersing children in the language we want them to learn is demonstrated, including the language of literature as well as the language of daily living, opportunities to practice skills, and ways adults provide feedback and models.

O'Malley, J. M., Chamot, A. U., and Walker, C. (1987, October). "Cognitive Theory to Second Language Acquisition." Studies in Second Language Acquisition, vol. 9, no. 3, pp. 287-306.

The authors describe recent theoretical developments in cognitive psychology that can be applied to second language acquisition and use the theory to analyze phenomena discussed regularly in second language literature. Some limitations of linguistic theories in addressing the role of mental processes in second language acquisition are identified and current cognitive learning theory in general is outlined.

Strickland, D. S. and Morrow, L. M. eds. (1989). Emerging Literacy: Young Children Learn to Read and Write. Newark, Delaware: International Reading Association.

This book offers suggestions from the field of children's literacy development and serves as a guide to improved classroom practice.

C. Language Development in Bilingual Children

Conklin, N. F. and Lourie, M. A., eds. (1983). A Host of Tongues: Language Communities in the United States. New York: The Free Press.

Outlined in this book are current issues and strategies for educating speakers of minority languages and dialects in terms appropriate for educators and policy planners.

Cummins, J. (1984). Bilingualism and Special Education: Issues in Assessment and Pedagogy. San Diego, California: College-Hill Press.

Psycho-education influences on minority student's development are discussed in this chapter, as mediating or intervening variables. Strong emphasis is placed on social and educational determinants of minority students' underachievement in order to counteract a previous tendency of educators and researchers to attribute children's school failure primarily to psycho-education deficits. Students instructed through a minority language for all or a part of the school day will perform in majority language academic skills as well or better than equivalent students instructed entirely through the majority language.

Dutcher, N. (1982). "The Use of First and Second Languages in Primary Education: Selected Case Studies." World Bank Staff Working Paper, no. 504. Washington, D. C.: The World Bank.

This paper discusses the question of whether, in a multilingual society, the child's first or second language is best as a language of instruction in primary school. The paper reviews eight case studies from seven countries and compares achievement, then concludes that answers must be found on a case-by-case basis.

Edwards, C. P. and Gandini, L. (1989, May). "Teachers' Expectations About the Timing of Developmental Skills: A Cross-Cultural Study." Young Children, vol. 44, no. 9, pp. 15-19.

Evidence is given that shows the results of mother and teacher expectations for children in their care. This evidence reveals that many expectations and resultant child behaviors and development are influenced by the cultural background or unconscious cultural biases of the mothers and teachers.

Genesee, F. (1987). Learning Through Two Languages. Cambridge, Massachusetts: Newbury House.

This book provides a comprehensive overview of second language immersion programs in Canada and the United States. Also addressed are bilingual education programs in the United States.

Gilmore, P. (1984, April). "Research Currents: Assessing Sub-Rosa Skills in Children's Language." Language Arts, vol. 61, no. 4, pp. 384-91.

This article reports on a study of children's own language, from their perspective, particular cultural content, and point of view. A broadened definition of assessing child language is given which enhances our respect for children's social and linguistic abilities.

Gilmore, P. and Glatthorn, A. A. (1982). Children In and Out of School: Ethnography and Education. Language and Ethnography Series, Volume 2, Washington, D. C.: Center for Applied Linguistics. Philadelphia, Pennsylvania: Research for Better Schools.

Included is a retrospective discussion of the state of the art in ethnography in education.

Krashen, S. (1981). "The Fundamental Pedagogical Principle in Second Language Teaching." Studia Linguistica, vol. 35, no. 1-2, pp. 50-70.

A "fundamental principle" in the field of language teaching and language acquisition is discussed along with five hypotheses on which this principle is based. Any instructional technique that helps second language acquisition, does so only by providing comprehensible input.

Labov, W. (1982). "Competing Value Systems in the Inner-City Schools." In Children In and Out of School: Ethnography and Education, edited by P. Gilmore and A. A. Glatthorn. Washington, D. C.: Center for Applied Linguistics, pp. 148-171.

Discussed in this reference is the fact that inner-city youth have rejected the school culture and a certain number of school values in favor of vernacular values. The author claims that the kinds of school values rejected are trivial, external patterns of behavior that have nothing to do with the essentials of the learning process. These are major sources of conflict that need to be identified in order to help the majority of our youth to move forward. This reference is written primarily for policy makers.

McLaughlin, B. (1985). Second-Language Acquisition in Childhood. Volume 1: Preschool Children. Hilldsdale, New Jersey: Lawrence Erlbaum Associates.

This book brings together research literature from diverse fields of study on the topic of second language learning in school-aged children. It is concerned with minority language children learning the second language which is used in the classroom. A brief history of second-language teaching is given followed by chapters dealing with various countries' experiences and various specific research topics in bilingual education in the United States. The final part of the book discusses central questions relating to second language learning in school-aged children. This book is written primarily for policy makers.

McLaughlin, B. (1987). Theories of Second Language Learning. London: Edward Arnold.

A summary of issues relating to second-language research theory is presented. The author provides a table of generalizations based on second language research. Also provided is an overview of research. The second language research is related to classroom teaching procedures. This book is directed toward policy makers.

Ogbu, J. U. and Matute-Bianchi, M. E. (1986). "Understanding Socio-Cultural Factors: Knowledge, Identity, and School Adjustment." In Beyond Language: Social and Cultural Factors in Schooling Language Minority Students. Los Angeles, California: Evaluation, Dissemination, and Assessment Center, California State University, Los Angeles, pp. 73-142.

This study discusses why some language minorities experience persistent disproportionate school failure and why some minority groups do quite well in school in spite of cultural and language barriers. The authors present various cultural discontinuities and the implications of their suggested approach.

Ovando, C. J. and Collier, V. P. (1985). Bilingual and ESL Classrooms: Teaching in Multicultural Contexts. New York: McGraw-Hill.

This text combines theory and research with practical classroom applications. The authors emphasize that language and culture form the foundation of their discussion about the options for instruction. The practical realities of schooling, rather than theoretical topics guide the text, and topic-specific, recommended readings are offered at the end of each chapter.

Strouse, J. (1988). "Literacy for a Pre-Literate Society: The Hmong in United States Public Schools." Presented to the Northwest Regional Educational Laboratory Language Development Specialist Academy, Portland, Oregon.

The author discusses the process and policies affecting Southeast Asian refugee education. In particular, the Hmong, a pre-literate rural people, who have trouble adjusting to city life in America are presented. The paper discusses the school's role in bridging the educational gap and providing these students with educational access.

Wong-Fillmore, L., et al. (1985). Learning English Through Bilingual Instruction. National Institute of Education Final Report. Berkeley, California: University of California, Berkeley.

This paper reports on a project investigating the effects of instructional practices and patterns of language use in bilingual and English-only classrooms on general academic development and the development of English language skills by limited-English-proficient students, especially those skills needed to participate fully in the society's schools. Policy makers and teachers are target audiences.

D. Related Policy Issues

Bredekamp, S., ed. (1987). Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8. Expanded Edition. Washington, D. C.: National Association for the Education of Young Children.

Position statements on appropriate practices for specific age groups from the major professional association for early childhood/early elementary educators, combined with essays from leading early childhood educators.

Conklin, N. F. (1989). Summary of Research on Effects of Early Childhood Education. Portland, Oregon: Northwest Regional Educational Laboratory.

This paper overviews the various studies of the longitudinal effects of early childhood education.

Cotton, K. and Conklin, N. F. (1898). "Research on Early Childhood Education." School Improvement Research Series, Topical Synthesis, no. 3. Portland, Oregon: Northwest Regional Educational Laboratory.

An overview of literature on effective strategies for early childhood education is presented.

Demmert, W. G. (1989). Rethinking and Restructuring Alaska's Primary Schools: Kindergarten through Fourth Grade. Juneau, Alaska: Alaska Department of Education.

This paper argues for the support to restructure Alaska's primary school programs and explains the elements that are part of the restructured primary school's learning program. Also presented are models under development in Alaska.

Gotts, E. (1987). "Parent Training, Home Environment, and Early Childhood Development: A Long-Term Follow-Up Study." Early Child Development and Care, vol. 27, pp. 359-372.

The value of measuring home environment in studies of early childhood development is discussed in this reference. Also described is an experimental program called Home Oriented Preschool Education (HOPE) for rural children.

Weikart, D. (1984, Winter). "Changed Lives: A Twenty-Year Perspective on Early Education." American Educator, vol. 8, no. 4, pp. 22-25 and 43.

This paper is an overview of the Perry Preschool Study by the principal investigator. The paper also discusses the implications and importance of early childhood education.

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